

polyvinyl chloride, polyvinylidene, polypropylene, polyethylene terephthalate, polyethylene terephthalate (glycol modified), and polycarbonate.

38. The composition of claim 36 wherein said synthetic organic polymer matrix is a straight chain polymer.

39. The composition of claim 36 wherein said antimicrobial side chain is selected from the group consisting of benzalkonium halide compounds, quaternary ammonium salts, pyridinium salts, phosphonium salts, and combinations thereof.

40. The composition of claim 36 wherein said antimicrobial side chain is positively charged.

Clean Version of Each Amended Claim

Please amend the claims as follows:

13. The process of claim 12 wherein said object is selected from the group consisting of foodstuffs, cosmetic items, medical equipment, medical devices, environmental equipment, environmental devices, sanitary equipment, sanitary devices, and consumer goods.

14. The process of claim 12 wherein said anti-microbial side chain is selected from the group consisting of quaternary ammonium salts, pyridinium salts, and phosphonium salts.

15. The process of claim 12 wherein said object is suitable for a variety of applications selected from the group consisting of film packaging of food stuff, container packaging of foodstuffs, cosmetics, medical equipment, medical devices, environmental ap-

plications, hygienic applications, and sanitation devices, as well as other consumer and commercial uses.

16. The process of claim 12 wherein films used to package and wrap food for the purpose of reducing surface bacterial, fungus, and/or virus count and/or increasing the shelf life of the enveloped food article.

17. The process of claim 12 wherein the charged species may be linked directly to a polymerizeable unit.

18. The process of claim 12 wherein the step of providing an anti-microbial agent further comprises selecting the polymer composition of claim 1 wherein the surface of said polymer comprises reactive groups for forming covalent bounds to substituents in a molecule containing an ammonium or phosphonium salt.

19. The process of claim 12 wherein said antimicrobial packaging film is capable of providing non-leaching broad spectrum anti-microbial activity.

20. The process of claim 12 wherein the step of providing an antimicrobial packaging film characterized having antimicrobial side chains covalently bound to a polymer further comprises selecting the polymer composition of claim 1 comprising an alkylating group for reacting with a neutral tertiary amine or phosphine.

21. The process of claim 12 wherein the anion of the quaternary salts is selected from the group consisting of anions of any physiologically acceptable acid.

22. The process of claim 12 wherein the step of providing an antimicrobial packaging film characterized having antimicrobial side chains covalently bound to a polymer having the general formula I further comprises selecting a copolymer.

23. The process of claim 12 wherein the step of providing an antimicrobial packaging film characterized having antimicrobial side chains covalently bound to a polymer further comprises selecting a laminate.
26. The method of claim 25 wherein the antimicrobial material is selected from the group consisting of benzalkonium halide compounds, quaternary ammonium salts, pyridinium salts, phosphonium salts, and combinations thereof.
27. The method of claim 25 wherein the substrate is selected from the group consisting of metal, wood, synthetic polymers, natural and synthetic fibers, cloth, paper, rubbers, and glass.
28. The method of claim 25 wherein said substrate is a medical device selected from the group consisting of catheters, stents, bandages, surgical equipment, surgical supplies, surgical implantation devices, and prosthetic devices.
29. The method of claim 25 wherein said an organic polymer matrix is formed from a plastic selected from the group consisting of polyamide, polyethylene, polyvinylidene chloride, polyvinyl chloride, polyvinylidene, polypropylene, polyethylene terephthalate, polyethylene terephthalate (glycol modified), and polycarbonate.
30. The method of claim 25 wherein said microorganisms are selected from the group consisting of bacterium, fungus, molds, yeast, and virus.

Remarks

By the foregoing Amendment, claims 36 through 40 of the present application are added. No new matter has been added to the instant application.